

XXX.—*Descriptions of Six new Freshwater Fishes from Mexico and Central America.* By C. TATE REGAN, B.A.

*Pimelodus Boucardi.*

Depth of body  $6\frac{1}{2}$  in the length, length of head 4. Breadth of head  $1\frac{1}{3}$  in its length, length of snout  $2\frac{3}{4}$ , diameter of eye 6, interorbital width 3. Lower jaw nearly as long as the upper; maxillary barbel extending to origin of adipose fin. Head covered with smooth skin; occipital process rather strong, extending  $\frac{1}{2}$  the distance from its base to the origin of dorsal. Dorsal 16, the spine slender, the fin rounded, as high as long. Adipose fin  $\frac{1}{3}$  the length of the fish. Anal 14. Pectoral spine with serrated inner edge, about  $\frac{3}{5}$  the length of the fin and  $\frac{1}{3}$  the length of head; humeral process long, nearly reaching the middle of the fin; ventrals originating nearly below the last dorsal ray, extending more than  $\frac{2}{3}$  of the distance from their base to the origin of anal. Caudal deeply notched, the lobes rounded, the lower the larger. Least depth of caudal peduncle  $\frac{1}{3}$  the length of head. Blackish.

*Hab.* Yucatan (*Boucard*).

A single specimen, 190 mm. in total length.

*Pimelodus brachycephalus.*

Depth of body  $5\frac{1}{2}$  to  $6\frac{1}{2}$  in the length, length of head  $5\frac{1}{2}$  to  $5\frac{2}{3}$ . Breadth of head  $1\frac{1}{3}$  in its length, length of snout  $2\frac{2}{3}$  to  $3$ , diameter of eye 5 to 6, interorbital width 3 to  $3\frac{1}{2}$ . Lower jaw a little shorter than the upper; maxillary barbel extending to the basal part of pectoral. Head covered with smooth skin; occipital process short. Dorsal 16, the spine slender, the fin rounded, as high as or higher than long. Length of adipose fin  $3\frac{1}{4}$  to  $3\frac{3}{4}$  in the length of the fish. Anal 12-13. Pectoral spine with serrated inner edge, about  $\frac{3}{5}$  the length of the fin and  $\frac{2}{5}$  the length of head; humeral process short; ventrals originating behind the dorsal, extending  $\frac{1}{2}$  to  $\frac{2}{3}$  the distance from their base to the origin of anal. Caudal moderately notched, the lower lobe rounded and rather shorter than the upper. Least depth of caudal peduncle  $\frac{2}{3}$  or more than  $\frac{2}{5}$  the length of head. Brownish.

*Hab.* Guatemala, Rio Nacasil (*Salvin*).

Six specimens, measuring up to 190 mm. in total length.

*Pimelodus Rogersi.*

Depth of body 6 in the length, length of head 5. Head  $1\frac{1}{2}$  as long as broad. Diameter of eye 6 in the length of head, interorbital width 3, length of snout 3. Head covered with smooth skin; fontanel not extending beyond the level of posterior margin of eye; occipital process short. Maxillary barbel extending to middle of pectoral fin. Dorsal I 6, the spine slender, the fin rounded, higher than long. Adipose fin as long as or a little longer than its distance from the dorsal, about  $\frac{2}{3}$  the length of the fish. Anal 12-14. Pectoral spine nearly  $\frac{2}{3}$  the length of the fin and nearly  $\frac{2}{3}$  the length of head, its inner edge with a series of rather small denticulations. Ventrals originating behind the last dorsal ray, extending  $\frac{1}{2}$  the distance from their base to the origin of anal. Caudal with a shallow notch. Least depth of caudal peduncle  $\frac{2}{3}$  the length of head. Brownish.

*Hab.* Costa Rica, Irazu (*H. Rogers*).

Four specimens, measuring up to 130 mm. in total length.

Allied to *P. Salvini*, Gthr., which has a longer adipose fin ( $\frac{2}{3}$  the length of the fish), a shorter pectoral spine (less than  $\frac{1}{3}$  the length of head), a shorter anal fin with 11 rays, and the caudal more deeply notched.

*Gambusia annectens.*

Depth of body 3 to  $3\frac{1}{2}$  in the length, length of head  $3\frac{1}{2}$  to  $3\frac{3}{4}$ . Snout as long as or shorter than eye, the diameter of which is 3 to  $3\frac{2}{3}$  in the length of head; interorbital width equal to the distance from middle or posterior part of eye to free edge of operculum. 28 to 31 scales in a longitudinal series. Dorsal 10-12; origin equidistant from tip of snout and middle or posterior part of caudal; free edge of the fin convex. Anal 9-10, pointed, originating a little in advance of the dorsal. Pectoral about  $\frac{3}{4}$  the length of head. Caudal rounded or subtruncate. Least depth of caudal peduncle about  $\frac{2}{3}$  the length of head. Scales with dark edges, forming series of spots on the lower part of the side; often a series of short dark vertical bars along the middle of the side; a series of dark spots on the lower part of the dorsal fin.

*Hab.* Costa Rica, Carrullo and Juan Veñas (*Underwood*); Irazu (*Rogers*).

Numerous specimens, measuring up to 70 mm. in total length.

This species is very close to *G. episcopi*, Steind., from Panama, which has only 8 or 9 dorsal rays and also differs in having a blackish spot on the anal fin. It is also close to

*G. terrabensis*, Regan, and *G. Jonesii*, Günther\*, and with them forms a series from *G. episcopi* to *G. (Pseudoxiphophorus) bimaculata*, Heck., so that the genus *Pseudoxiphophorus* can no longer be maintained.

*Gambusia terrabensis*.

Depth of body  $3\frac{1}{4}$  to  $3\frac{1}{2}$  in the length, length of head  $3\frac{1}{2}$  to  $3\frac{3}{4}$ . Snout shorter than eye, the diameter of which is 3 to  $3\frac{1}{2}$  in the length of head; interorbital width equal to the distance from posterior margin of pupil to free edge of operculum. 29 to 31 scales in a longitudinal series. Dorsal 12-14; origin equidistant from tip of snout and base of caudal or a little nearer the latter. Anal 9-10; origin below or a little in advance of the middle of dorsal. Pectoral nearly  $\frac{3}{4}$  the length of head. Caudal subtruncate. Least depth of caudal peduncle nearly  $\frac{2}{3}$  the length of head. Scales of the upper part of the body with dark edges; an interrupted dark lateral stripe; dorsal fin with a basal series of vertically expanded blackish spots and with a second series of smaller spots; anal dark at the base and also distally; posterior part of caudal dusky.

*Hab.* Costa Rica, Rio Grande de Térraba, Pacific Slope (*H. Pittier*).

Six specimens, measuring up to 48 mm. in total length.

*Sicydium Pittieri*.

Depth of body 6 in the length, length of head  $5\frac{1}{3}$  to  $5\frac{2}{3}$ . Diameter of eye  $5\frac{1}{2}$  to 6 in the length of head, interorbital width 4 to  $4\frac{1}{2}$ . Snout obtuse; mouth subterminal, with horizontal cleft, extending to below the middle of eye; upper teeth bicuspid; teeth of the outer series in the lower jaw sometimes concealed. Occipital region covered with small scales; 75 to 80 scales in a longitudinal series; abdomen with a median naked area or strip. Dorsal VI, I 10; rays of first dorsal (in the males) produced into filaments, the longest, when laid back, nearly reaching the end of the base of second dorsal; longest rays of second dorsal a little longer than the head. Anal I 10; origin equidistant from eye and base of caudal. Pectoral longer than the head, twice as long as the ventrals. A dark spot on each scale; dorsal fins with dark vermiculations; anal with a dark edge.

*Hab.* Costa Rica, Rio Grande de Térraba (*H. Pittier*).

Two specimens (males), 120 and 135 mm. in total length.

This species is nearest to *S. Salvini*, Grant, from Panama and Western Ecuador.

\* *Mollienisia Jonesii*, Gthr. = *Pseudoxiphophorus pauciradiatus*, Regan.